

Serial Number 10/064,683

Filed August 6, 2002

Group Art Unit: 1725

REMARKS

Claim 1-31 are pending in the application. Claims 5, 7, 16, 26 are amended to correct typos and informalities.

Claims 1-10 were rejected under 35 USC 103(a) over U.S. Patent No. 4,800,131 to Marshall et al. ("Marshall") in view of U.S. Patent No. 4,463,243 ("Church"). Applicant respectfully asserts that the Patent Office has not met its burden of establishing a *prima facie* case of obviousness and therefore the rejection is improper.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the reference (or references when combined) must teach or suggest all the claim limitations¹.

Upon examination of each of the three legal requirements of the *prima facie* case of obviousness in view of the Patent Office's rejection of Claims 1-10, Applicant asserts that the Patent Office has satisfied none of the three requirements. With regard to the final requirement that a reference or a combination of references must teach or suggest all the claim limitations, it is respectfully argued that neither Church nor Marshall nor their combination discloses or even suggests the present invention as claimed in independent Claims 1. Applicant's attorney has carefully reviewed both patents, but could not find a teaching of a wire electrode with a core composition comprising a combination of graphite and a compound of potassium, wherein that combination of graphite and potassium in the core composition does not exceed 5%wt, as claimed in independent Claim 1. Church doesn't mention anything about the composition of a wire. While Marshall talks about cored wire filler metals, it mentions a potassium titanate compound only once (Col. 2, line 19), never mentioning or suggesting that a combination of graphite and compounds of potassium should be used in the core to stabilize the arc in an alternating current welding process without destabilizing a welding arc, and never mentioning or suggesting any percentage of the combination in the core composition, contrary to the invention claimed in independent Claim 1. The words "alternating current" are mentioned in Marshall once (Col. 3, lines 1-5) as a test condition of Example 1 with a practical conclusion that only a three-

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phase constant current (not alternating) produced satisfactory welding results. Church doesn't mention an alternating current welding process even a single time. The word "combination" was mentioned in Marshall once (Col. 2, line 11) in reference to a combination of various types of wires, not to a composition of the core elements or compounds. Therefore, none of the cited patents, alone or combined, teach or suggest all of the limitations of independent Claim 1. The Patent Office has not met its burden of establishing a prima facie case of obviousness with respect to Claim 1.

Claims 11-31 were rejected under 35 USC 103(a) over U.S. Patent No. 4,463,243 ("Church") in view of U.S. Patent No. 4,800,131 to Marshall et al. ("Marshall"). Applicant respectfully asserts that the standard of prima facie case of obviousness was not established by the Patent office with respect to independent Claims 11 and 20.

Similarly to the arguments presented above, none of the cited patents alone or combined teach or suggest an alternating current welding apparatus or an alternating current welding process with a wire electrode with a core composition comprising a combination of graphite and a compound of potassium, wherein that combination of graphite and the compound of potassium in the core composition does not exceed 5%wt, as claimed in independent Claims 11 and 20. In fact, no range of compositions of a combination of graphite and a potassium compound is mentioned in any of the cited patent. Therefore, none of the cited patents, alone or combined, teach or suggest all the limitations of independent Claims 11 and 20. The Patent Office has not met its burden of establishing a prima facie case of obviousness with respect to Claims 11 and 20.

With regard to some suggestion or motivation to modify the reference or to combine reference teachings, as well as to a reasonable expectation of success, it has been well articulated that a factual inquiry whether to combine references must be based on objective evidence of record² and that teachings of references can be combined only if there is some suggestion or incentive to do so³. Applicant respectfully argues that because all elements of independent Claims 1, 11 and 20 are not disclosed or even suggested to in either Church or Marshall or their combination, there can be no objective evidence of record that the two patents can be combined

¹ MPEP 2142-2143

² In re Lee, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

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to come up with the claimed invention. Similarly, no reasonable expectation of success of combining the cited patents to come up with the claimed invention could be found in the cited patents, since they don't even disclose all the limitations of the invention claimed in independent Claims 1, 11 and 20. Therefore, the Patent Office has not met its burden to establish a prima facie case of obviousness with regard to independent Claims 1, 11 and 20. Applicant respectfully asks the Patent Office to withdraw the obviousness rejection and allow the referenced independent Claims.

Specifically, Marshall talks about cored wire filler metals. It mentions a potassium titanate compound only once (Col. 2, line 19) throughout the whole patent. It never mentions or suggests that a combination of graphite and a compound of potassium should be used as an arc stabilizer in an alternating current welding configuration, as claimed in independent Claims 11 and 20. Marshall never mentions or suggests any range of percentages of the combination in the core composition, it never mentions anything at all with respect to a percentage of a combination of graphite and a compound of potassium, and logically so, since Marshall never mentions such a combination in the first place, contrary to the elements of independent Claims 1, 11 and 20. Therefore, the Patent Office has not met its burden of establishing a prima facie case of obviousness with respect to Claims 1, 11 and 20.

Also logically there can be no objective evidence found on the record that the two patents can be combined to come up with the invention claimed in Claims 1, 11 and 20. Similarly, no reasonable expectation of success of combining the cited patents to come up with the invention claimed in Claims 1, 11 and 20 could be found in the cited patents, since they don't even disclose all the limitations of the invention claimed in Claims 1, 11 and 20. The Patent Office has not met its burden to establish a prima facie case of obviousness with regard to independent Claims 1, 11 and 20. Applicant respectfully asks the Patent Office to withdraw the obviousness rejection and allow Claims 1, 11 and 20.

Claims 2-10 depend off allowable Claim 1 and are now allowable. Allowance of Claims 1-10 is respectfully requested. Claims 12-19 depend off allowable Claim 11 and are now allowable. Claims 21-31 depend off allowable Claim 20 and are now allowable. Allowance of Claims 12-19 and 21-31 is respectfully requested.

³ In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988).

CONCLUSION

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For the foregoing reasons, Applicant believes this application is in condition for allowance which is respectfully requested. Please contact the undersigned attorney with any questions regarding this application and pending Claims to expedite their allowance.

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Respectfully submitted,

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